

Appl. No.: 10/603,913

Reply to Office Action of: 01/10/2008

REMARKS

Claims 1-8 and 33-35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sullivan et al. (US 7,181,172) in view of Denes (US 5,220,488). Claims 9-15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sullivan et al. (US 7,181,172) and Denes (US 5,220,488) in view of Politycki et al. (US 3,767,538). Claim 16 was rejected under 35 U.S.C. §103(a) as being unpatentable over Sullivan et al. (US 7,181,172), Denes (US 5,220,488), and Politycki et al. (US 3,767,538) in view of Murakami et al. (US 4,239,813). Claims 17-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sullivan et al. (US 7,181,172), Denes (US 5,220,488), and Politycki et al. (US 3,767,538) in view of Nishihara et al. (US 5,118,458). The examiner is requested to reconsider these rejections.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

Applicants have amended claim 1 to recite, *inter alia*, "wherein the integral electrical connector structure is configured to removably receive at least a portion of a mating connecting member of the electronic component therein".

In contrast, Sullivan merely discloses a wireless device 400 comprising electrical circuitry molded into an internal space 502 of a panel 404. The electrical circuitry in Sullivan provides the electrical supply for the components (antenna 504, battery 508, etc.). The connection between these

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components and the circuitry is by way of contacts (see for example the contacts 504c in Fig. 5, contacts 908 in Fig. 9, and 1004 in Fig. 10). Nowhere in Sullivan is there a disclosure or suggestion that the contacts 504c, 908, 1004 form an electrical connector structure configured to removably receive any type of a mating connecting member. Just the opposite, the contacts 504c, 908, 1004 in Sullivan are conventional electrical contacts which separately extend from a panel of the device and are configured to deflect and make direct contact with another component (see Figs. 5, 6, and 8-10). Sullivan does not disclose or suggest forming any type of integral electrical connector structure within the internal space 502.

Additionally, claim 1 claims "providing electrical circuitry, subsequently moulding an electronic device cover member for an electronic device on to the electrical circuitry". In contrast, Sullivan merely discloses a wireless device using a two shot molding method wherein the contact plating is molded directly to the back panel of the device (see col. 3, lines 54-55). Nowhere in Sullivan is there a disclosure or suggestion that the panel of the device is molded on to the contact plating. Thus, Sullivan fails to teach a process comprising "providing electrical circuitry, subsequently moulding an electronic device cover member for an electronic device on to the electrical circuitry".

The examiner indicates that "Sullivan fails to disclose moulding electrical circuitry" and further states that "Denes discloses in Fig. 16 shows moulding circuitry shown in Fig. 15

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and 22 are opening to receive a portion of a connecting member".

Denes discloses a molded printed circuit package comprising a flexible plastic film 11 having vias openings 22 and conductive material 14, 21 fused to a substrate material 12. The vias 22 "interconnect the conductive traces 21 with the conductive traces 14 in the flexible film 11" (see Fig. 2 and col. 4, lines 4-6). In other words, the vias 22 are through holes in the film 11 which allow for the conductive trace material 14, 21 to extend therethrough to interconnect between different layers of the printed circuit package. There is no disclosure or suggestion in Denes that the vias 22 are configured to receive a portion of a mating connecting member of an electronic component.

Even if, for the sake of argument, the vias 22 were configured to receive a portion of a connector member, Denes teaches that the film 11, conductive paths 14, 21, and substrate 12 are fused together resulting in an integrally molded product of one piece construction (see col. 5, lines 29-44). Thus, any "received" portion of a connector member would also be fused to the integrally molded product of one piece construction. Therefore, the vias 22 are not configured to removably receive any type of member.

Furthermore, applicants submit that there is no suggestion to combine the references as the examiner is attempting to do (at least not until after reading applicants' patent application). In particular, Sullivan discloses the contacts 504c, 908, 1004 which separately extend from a panel of the device and are

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configured to deflect and make direct contact with another component (see Figs. 5, 6, and 8-10). Denes teaches that the "conductive paths 14, 14a and 21, and the resistor 27 are thereby embedded into the film 11 and in the instance where they are positioned face-up in the mold half 33 this results in a coplanar or flush condition with the surface of the film" (see col. 5, lines 49-53). Applicants submit that if one skilled in the art modified Sullivan as taught by Denes, the proposed combination would result in an electronic device that is inoperable. This inoperable condition would result as the coplanar or flush condition of the surface of the film (with embedded traces) would not allow for the electrical contact connection (required to extend from the panel of the device in Sullivan) with components required for operation of the device such as the antenna 504, battery 508, etc.

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. (see MPEP 2143.01, page 2100-98, column 1). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination (see MPEP 2143.01, page 2100-98, column 2). A statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" because the references relied upon teach that all aspects of the claimed

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invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. (see MPEP 2143.01, page 2100-99, column 1) Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). >See also Al-Site Corp. v. VSI Int'l Inc., 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999) (The level of skill in the art cannot be relied upon to provide the suggestion to combine references.)

In the present case, there is no teaching, suggestion, or motivation, found in either the references themselves or in the knowledge generally available to one of ordinary skill in the art, to provide electrical circuitry, subsequently moulding an electronic device cover member for an electronic device on to the electrical circuitry, and providing on the cover member an integral electrical connector structure for connecting the electrical circuitry to an electronic component, wherein the integral electrical connector structure is configured to removably receive at least a portion of a mating connecting member of the electronic component therein as claimed in amended claim 1. The features of claim 1 are not disclosed or suggested in the art of record. Therefore, claim 1 is patentable and should be allowed.

Though dependent claims 2-20 and 34 contain their own allowable subject matter, these claims should at least be allowable due to their dependence from allowable claim 1. However, to expedite prosecution at this time, no further comment will be made.

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Applicants have amended claim 33 to recite, *inter alia*, "wherein the opening forms an electrical connector receiving area, and wherein the electrical connector receiving area is configured to receive at least a portion of a connecting member of the electronic component therein". Similar to the arguments presented above with respect to claim 1, there is no disclosure or suggestion in Sullivan to provide any type of a connector structure, let alone an electrical connector structure comprising an opening integrally formed with the molded front panel 402 or back panel 404 of the cell phone 400. Also similar to above, the vias opening 22 in Denes are through holes in the film 11 which allow for the conductive trace material 14, 21 to extend therethrough to interconnect between different layers of the printed circuit package. Although the vias 22 are openings, the openings are in the plastic film material. The vias 22 are not associated with an electrical connector structure. Nor do the openings form an electrical connector receiving area. There is no disclosure or suggestion in Denes that the vias 22 are configured to receive a portion of a connecting member of an electronic component.

Neither Sullivan nor Denes teach or suggest a process of manufacturing an electronic device cover comprising providing on the cover member an electrical connector structure for connecting the electrical circuitry to an electronic component, wherein the electrical connector structure is integrally formed with the cover member during the incorporating of the electrical circuitry into the cover member during the forming of the cover member, wherein the

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electrical connector structure comprises an opening, wherein the opening forms an electrical connector receiving area, and wherein the electrical connector receiving area is configured to receive at least a portion of a connecting member of the electronic component therein, as claimed in applicants' claimed invention.

Additionally, applicants submit that there is no suggestion to combine the references as the examiner is attempting to do (at least not until after reading applicants' patent application). In the present case, there is no teaching, suggestion, or motivation, found in either the references themselves or in the knowledge generally available to one of ordinary skill in the art, to provide an "electrical connector structure ... integrally formed with the cover member ... , wherein the electrical connector structure comprises an opening, wherein the opening forms an electrical connector receiving area, and wherein the electrical connector receiving area is configured to receive at least a portion of a connecting member of the electronic component therein" as claimed in amended claim 33. The features of claim 33 are not disclosed or suggested in the art of record. Therefore, claim 33 is patentable and should be allowed.

Though dependent claim 35 contains allowable subject matter, this claim should at least be allowable due the dependence from allowable claim 33. However, to expedite prosecution at this time, no further comment will be made.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are

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clearly novel and patentable over the prior art of record. Accordingly, favorable reconsideration and allowance is respectfully requested. If there are any additional charges with respect to this Amendment or otherwise, please charge deposit account 50-1924 for any fee deficiency. Should any unresolved issue remain, the examiner is invited to call applicants' attorney at the telephone number indicated below.

Respectfully submitted,

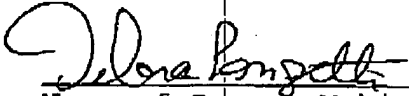


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